



Air and Waste Matters

DNREC Division of Air and Waste Management

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Universal Recycling Comes to Delaware

Did you know that the average Delaware household disposes of nearly 3,000 pounds of trash each year? That's trash that goes straight to our overburdened landfills.

But starting next year, it will be a different story. Governor Jack Markell signed the landmark Universal Recycling Bill on June 8, 2010, with the promise of a recycling bin in every Delaware household.

The legislation calls for a universal program that will be rolled out in steps: September 2011 for single family homes, restaurants and bars; January 2013, for apartment complexes and other multi-family residences; and January 2014 for commercial businesses.

It also eliminates the current five-cent "bottle bill" deposit and replaces it with

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W. Miller, SHWMB

Gov. Jack Markell holds the newly signed legislation, while Sec. Collin O'Mara applauds the bill. DSWA's Pat Canzano (left) observes the positive response.

Universal Recycling *Continued...*

a four-cent fee, which will provide start up funding to purchase dedicated recycling bins and trucks.

The bill is the culmination of decades of comprehensive work, starting in the 1980s with Governor Mike Castle and continuing through the 1990s with Governor Tom Carper directing DNREC, the Delaware Economic Development Office (DEDO) and the Delaware Solid Waste Authority (DSWA) to increase curbside collections. Governor Carper signed an executive order in 1999 that established the initial Citizens' Work Group on Recycling to provide recommendations on recycling.

In 2000, Governor Carper signed a second order that established the current Recycling Public Advisory Council (RPAC). In 2006, Governor

Ruth Ann Minner expanded RPAC, appointed members to the advisory council, and established a 51% diversion goal by 2015. The statewide recycling effort was also spearheaded by legislators including Sen. David McBride and Rep. Michael Mulrooney.

It is thanks to these many individuals and work groups, their tireless dedication, and Governor Markell's commitment to a cost-effective and convenient program, that we now have a comprehensive universal recycling program in Delaware.

For more information on recycling, please visit:
<http://www.awm.delaware.gov/Pages/Recycling.aspx>.

Article by C. Wirtz, DAWM



W. Miller, SHWMB

Workers sort waste at Waste Management's new single-stream recycling facility in Elkridge, Maryland. The \$7 million, state-of-the-art facility is one of several that accepts recyclables from Delaware.

Ambient Air Monitoring at Former Valero Refinery

When PBF Energy Partners announced the purchase of the Valero Energy refinery in early June 2010, many residents in nearby Delaware City breathed a sigh of relief. Others, however, worried about exactly what they would be breathing. Grateful to see much needed jobs returning to the area, but not so much regarding air quality issues returning with them.

Residents may be interested to hear the results of the Division's Air Quality Management Section-Air Surveillance Branch's (AQM-ASB's) special short-term ambient air monitoring study to collect air quality data during the closing of the refinery. The study will continue through the startup of the refinery as well.



The Ultra-fine Particle Monitor is located at a site adjacent to the former Valero Energy refinery on Route 9.

The startup and shutdown of a refinery are typically times with higher air emissions than when operational, that is, until the facility is completely closed. In late 2009, Valero Energy announced it would permanently close the refinery in Delaware City, after it could not find a viable buyer. The refinery had never been completely shutdown since it was commissioned in 1956.

The ambient air monitoring study was designed to collect as much relevant ambient air data before, during and after the facility shutdown for comparison to historical data for 2007, 2008, and 2009 over roughly the same time period. The ASB collaborated with the University of Delaware to place an Ultra Fine Particle Monitor at the Route 9 site during plant operation and plant shutdown.

Particle count samples collected downwind of the refinery were significantly higher **after** repairs were complete and the shutdown was over in May. Additional wind sectors also showed increased particle levels in May. The particle counts may have been impacted by traffic in the area.

Both the sulfur dioxide (SO₂) and selected metal concentrations showed downward trends during the shutdown. The hourly and 24-hour sulfur dioxide averages showed that the SO₂ data collected during the shutdown was statistically significantly lower than the historical data. For the metals, chromium, nickel, and lead levels were statistically significantly lower than the historical data.

No statistically significant differences were identified for hourly carbon monoxide (CO) averages and several volatile organic compounds (1,3-butadiene, benzene, toluene, ethylbenzene, and m,p-xylene), when compared with the historic data.

The shutdown of Valero's Delaware City refinery generally showed consistent or decreasing trends, perhaps due to limited flaring during closure and existing pollution controls. For more information on AQM, please visit:

<http://www.awm.delaware.gov/AQM/Pages/Default.aspx>.

Article by J. Martini, AQM

Emergency Response—On the Ground and in the Air

Human Exterior Cargo (H.E.C.) Class D Rescue Hoist Training is what they call it, but for the four DNREC emergency responders chosen to participate, it was five days of some mighty challenging activities and a few choice expletives!



Jamie Bethard begins his descent to the deck.



Erich Schuller descends from the State Police helicopter while Wendy March holds the tag line below on the deck of Sunoco's supertanker, the *Overseas Acadia*.

Helicopter operations to ships are difficult and thus infrequent. Most ships have not been designed for helicopter operations and the deck environment can be rather complex with many hazards.

The US Coast Guard (USCG) was interested in forming partnerships with area responders who have appropriate specialized resources. The USCG would be designated as the unified commander in any event on the open water, although DNREC also has environmental jurisdiction on all ships and supertankers at anchorage or transiting within the State's waters.

The DNREC Emergency Responders, Wendy March, Erich Schuller, Mark Lutzykowski, and Jamie Bethard, were trained by Priority 1 Air Rescue on land, prior to the supertanker drop.

The training included hoisting terminology, 10-point pre-operations gear inspection, general rescue-

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Emergency Response *Continued...*

hoist sequence of events, and rescue hoisting emergency procedures. According to Jamie Bethard, Operations Team Leader for DNREC's Marine Incident Response Team, the training provides another means of transport for responding to incidents on ships in the Delaware Bay. This may be vital when there is an immediate need for responders and monitoring equipment.

The other participants in the exercise included the Delaware State Police and Fire Service Scuba Teams; Sunoco; OSG America; Summit Aviation; the Wilmington Police Department and Fire Department; the Delaware Bay Launch Service; Tow Boat US and the United Open Water Rescue Program.



Emergency Responders Wendy March, Erich Schuller, Mark Lutrzykowski, and Jamie Bethard pose for a photo by the Bell 412.

The final day of their training was a major Search and Rescue Interoperability Exercise and the "first-of-its-kind" in the First State. The idea was to test interagency assets while responding to a major incident aboard a super-tanker in anchorage on the Delaware Bay.

"The Flying Tigers," as the orange and black suited responders were affectionately dubbed, received Certificates of Completion as Rescue Specialists for the 36-hour H.E.C. Class D training. That's not all, though. To maintain their certification, they will also have to complete multiple lifts on a yearly basis. Just another day on the job for the Marine Incident Response Team.



The State Police Bell 412 helicopter hovers over the landing area on the deck of the *Overseas Acadia*.

*Photos by John J. Randolph
Delaware State Police, 2009
Article by C. Wirtz, DAWM*

Diesel Retrofits with Recovery Act Funding



National Clean Diesel Campaign

Logo from EPA NCDC

Delaware has taken EPA's National Clean Diesel Campaign to heart, and lungs as well! The campaign is designed to aggressively reduce diesel engine pollution. Diesel emissions can lead to serious health conditions, such as asthma and allergies, and can also worsen heart and lung disease, especially for children and the elderly.

With so much at stake, the Division's Air Quality Management (AQM) Section intends to complete three new clean diesel projects this year using American Recovery and Reinvestment Act (ARRA) Funding.

The first project consists of the installation of diesel particulate filters or other after-treatment control devices on 24 heavy-duty trucks operated by the City of Wilmington, and 42 school buses operated in Kent and Sussex Counties. To date, 42 school buses belonging to the Capitol School District, M.L. Smith Bus Company, Providence Creek Academy, and Cape Henlopen School District have been retrofitted with diesel particulate filters.

The second project will be the installation of a truck stop electrification facility at the Smyrna Rest Area, located in southern New Castle County. The big rigs will be able to shut off their engines and plug into a heating or air conditioning system while they rest. The third project is the replacement of a two diesel generators at Fort Delaware State Park.

The state park is on an island located along the Delaware River. The fort is a historic tourist attraction, but has no electrical service because of its location. The two diesel generators at the fort will be replaced by a cleaner micro-turbine diesel electrical generator.

The major benefit from these projects will be the reduction of fine particulate matter, although additional reductions will be achieved in volatile organics and carbon monoxide. Estimates in emission reductions of these pollutants from baseline levels are expected to be 0.2 tons per year of fine particulate matter, 0.7 tons per year of hydrocarbons and 2 tons per year of carbon monoxide.

Incremental benefits of these projects may be seen in fewer lung diseases such as asthma and emphysema, as well as fewer emergency room visits during poor air quality days. Health benefits to school children and the communities in Wilmington may be realized in combination with other diesel emission reduction technology found in new truck and bus models.

For more information on AQM, please visit:

<http://www.awm.delaware.gov/AQM/Pages/Default.aspx>.

Additional information on the EPA's campaign can be found at:

<http://www.epa.gov/cleandiesel/>.

From EPA's NCDC and P. Wheeler, AQM

Who Ya Gonna Call? TrashStoppers!



Tired of seeing trash on the side of the road? Old appliances, carpets and construction debris dumped along scenic byways and industrial avenues alike?

Then DNREC is looking for you! We need your help with the “TrashStoppers” campaign.

Trash left behind by illegal dumping can be harmful to public health, pollute the land, and destroy the state’s natural beauty. It is also costly to clean up, and taxpayers, as well as local and state governments, inevitably bear the cost. Illegally dumped trash must be hauled away to a permitted landfill or transfer station, which can result in significant cost.

The public can really make a difference in stopping illegal trash dumping along Delaware roadways. Clean-loving citizens can call the Environmental Complaint Hotline (800-662-8802) to report trash dumpsites, provide tips on chronic dumping, and to help identify illegal dumpers.

Digital cameras are now used to identify trash dumpers. Citizens can notify DNREC about any roadways or streets used for illegal dumping and the sites can be put under surveillance. If license plates or other means of identification are not evident, the photos may be posted on the TrashStoppers web site for the general public to identify.

Numerous surveillance cameras are currently in use in New Castle County and are integral to statewide cleanup efforts, according to Chief William McDaniel —DNREC Environmental Crimes Unit. “Our Environmental Protection Officers do an excellent job responding to complaints and proactively patrolling our roads, but our officers can’t be everywhere. So we’re calling on citizens to help identify trash dumpers caught breaking the law.”

The “TrashStoppers” campaign can be accessed online at: www.dnrec.delaware.gov. Citizens can call the toll-free, 24-hour Environmental Complaint Line at 800-662-8802 to report illegal dumping activities. Verizon Wireless customers in Delaware should call #367 on their cell phones.

All information is confidential and callers reporting illegal dumping incidents, sites used for dumping, or helping to identify trash dumpers, may remain anonymous.

From DNREC Press Release, 4/22/10



DNREC’s surveillance camera captured this illegal dumper in action, leading to the conviction of the vehicle owner and a \$500 fine.

**DELAWARE
DEPARTMENT OF
NATURAL
RESOURCES AND
ENVIRONMENTAL
CONTROL**

Secretary Collin O'Mara
Deputy Sec. David Small

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We're on the web!
www.awm.delaware.gov

Visit the Site
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for more Brownfields
information.



The Division of Air and Waste Management includes the following sections and responsibilities:

- **Air Quality Management Section** — air monitoring and regulating air emissions.
- **Tank Management Branch** — maintenance and installation of underground and above ground storage tanks & overseeing cleanup of tanks which may leak.
- **Emergency Prevention and Response Branch** — preventing industrial accidents, assuring emergency planning and community right-to-know, and responding to environmental emergencies.
- **Environmental Crimes Unit** — the Enforcement Officers enforce the state's air, waste and water pollution laws, and participate on DNREC's Environmental Response Team by responding to environmental emergencies.
- **Site Investigation and Restoration Branch** — remediation of sites contaminated by hazardous substances (Superfund/Brownfields/Voluntary Cleanup Program).
- **Solid and Hazardous Waste Management Branch** — reuse, recycling, transport and disposal of solid and hazardous waste.

EASY REFERENCE PHONE NUMBERS

24-Hour Report and Spill Notification Line - 1-800-662-8802
Aboveground Storage Tanks - 302-395-2500
Air Quality - Dover Office - 302-739-9402
- New Castle Office - 302-323-4542
Asbestos - New Castle - 302-323-4542
- Kent & Sussex - 302-739-9402
Boiler Safety - 302-744-2735
Brownfields - 302-395-2600
Emergency Prevention and Response - 302-739-9404
Environmental Crimes Unit - 302-739-9401 or 1-800-662-8802
Hazardous Waste - 302-739-9403
Medical Waste - 302-739-9403
Open Burning - 302-739-9402
Outreach Ombudsman - 302-395-2515
Recycling - 302-739-9403
Site Investigation & Restoration Branch (Superfund/Brownfields) - 302-395-2600
Small Business Ombudsman - 302-739-9909
Solid Waste - 302-739-9403
Underground Storage Tanks - 302-395-2500

DID YOU KNOW?

Four officers from DNREC's enforcement sections competed in a firearms shooting competition at Dover Air Force Base in May. The competition was held in conjunction with the Law Enforcement Memorial Week. Law enforcement teams composed of military, state and local officers competed in a variety of exercises, which demonstrated firearms proficiency and accuracy. The DNREC Team was awarded first place and one DNREC officer took the honors of overall top shooter. The team consisted of Cpl. Mike Costello, ECU; Cpl. Danny Wood—top overall shooter, ECU; Cpl. Carl Winckoski, F&W; and Sgt. Darren Lawson, Parks. It's good to be first!